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The Commonwealth of Massachusetts
Massachusetts Senate

THE DEPARTMENT OF LABOR AND INDUSTRIES

*Division of Occupational Hygiene
*Division of Industrial Safety

A PERFORMANCE AUDIT

Senate Committee
on Post Audit and Oversight

Senator Louis P. Bertonazzi, Chairman

Commonwealth of Massachusetts

MASSACHUSETTS SENATE

The Honorable William M. Bulger
President of the Senate

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A Report of the

SENATE COMMITTEE ON POST AUDIT AND OVERSIGHT

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FOREWORD

Each year thousands of Massachusetts workers suffer the effects of an injury or illness that is work related. It is estimated that in 1986, over three hundred workers in Massachusetts died from job related accidents and thousands more suffered job related disabilities, many of which are permanent. The overall cost attributed to job related accidents and injuries in the state reached almost one billion dollars that year. Yet, on a daily basis, little is written or heard about workplace safety, or those responsible for regulating it. Only a dramatic, multiple death or injury incident seems to command our attention.

The Senate Committee on Post Audit and Oversight initiated an audit of certain activities of the Department of Labor and Industries because it was concerned about, and interested in knowing what was being done to prevent, both the dramatic workplace accidents, and the daily "routine" workplace mishap. The Committee learned that the Department of Labor and Industries has a strong commitment to and commendable concern for meeting its workplace safety mandates. However, like many state agencies, the Department suffers from a lack of resources which may limit its ability to effectively and efficiently meet its goals and objectives. Apparently, its role has been expanded over time to the point where programmatic effectiveness now is being jeopardized. The Divisions of Industrial Safety and Occupational Hygiene, the two Divisions which the Committee studied in depth, are functioning at levels which are at or certainly close to capacity. This capacity problem results from years of increasing responsibilities coupled with eroding or static resources.

In addition, the Committee believes the Commonwealth suffers from a lack of workplace health and safety leadership, planning, and coordination. Many agencies have pieces of the responsibility, but little joint planning or program coordination occurs. Duplication of inspectional efforts and standard setting is common. But recognition of the intense technological changes in the state's workplaces and the expansion of diverse industries and worksites is not apparent. For example, as the state braces itself for the Third Harbor Tunnel and Central Artery Depression projects, projects which will bring thousands of additional workers into Massachusetts, the Committee questions if worksite safety monitoring has been provided for, or adequately considered in project plans.

The Department of Labor and Industries has a history and commitment which positions it well to be a workplace health and safety leader. But a firm decision must be made to move the Department to that position, and to commit necessary management and support resources to plan and develop a sound base from which it can exercise that leadership, and keep it, in an ever changing and increasingly complex employment environment. The Committee urges that this be done before a dramatic, and preventable, workplace accident compels our belated attention to this essential function of government.

In conducting the research for this report, the Committee received complete cooperation and assistance from the Department and its staff, as well as many others in industry and business. The Committee is appreciative of that assistance and hopes that its findings provide a constructive and useful basis for considering the future of workplace health and worker safety in Massachusetts.

Sincerely,

Louis P. Bertonazzi

LOUIS P. BERTONAZZI
Chairman

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EXECUTIVE SUMMARY

This report of the Senate Post Audit and Oversight Committee reviews the functional performance of the Department of Labor and Industries' Divisions of Occupational Hygiene and Industrial Safety. It also reports on the Department's Right-To-Know program responsibilities and performance.

The workplace is a major site of disease contraction and death. In Massachusetts, it is the Department of Labor and Industries which has the primary mandate to enforce health and safety standards in our workplaces and to ensure compliance by employers with fair labor standards. Research for this report showed that both the Divisions of Industrial Safety and Occupational Hygiene do play a major role in enforcing health and safety statutes and in solving health and safety problems in the workplace. But, both divisions are fast approaching the point where their programs may be affected negatively by dwindling or, at best, stable resources in a workworld that is ever changing in its complexity, size and technology.

The two Divisions reviewed have distinct responsibilities although both are assigned operational aspects of certain programs, such as Right-To-Know and a federally funded consultation effort. They also have distinct approaches, with Occupational Hygiene adopting an education and technical assistance emphasis while Industrial Safety serves more as an industry standard setter and enforcer. Both Divisions have in common a limitation of resources, forcing them into a predominately reactive rather than proactive mode. And both have suffered from a fundamental absence of data and data systems, a handicap both for internal management and for program development, staff scheduling and program design.

In addition, this lack of data proved an obstacle to any objective assessment of the quality or proficiency of the Divisions' activities since no baseline information was available on the scope of DLI's regulated universe or the level of activity appropriate for meeting its regulatory mandate. All that could be reviewed and reported was activity levels per se for various program initiatives. The quality, sufficiency or appropriateness of these activities could not be measured or judged. The Division of Occupational Hygiene recently secured a limited data system and the Division of Industrial Safety hopes to have a basic system in place soon. The Committee encourages continued development of data capabilities as essential to efficient program operation, identification of program priorities and measurement of program performance and impact.

The Department of Labor and Industries is not alone in overseeing workplace safety efforts but shares that role with numerous federal and state entities, most notably the Federal Occupational Safety and Health Administration (OSHA). The Committee found that this situation of multiple regulators had in some cases the effect of lessening the credibility of and respect accorded to any one regulator. For that reason the Committee urged DLI to reconsider obtaining designation from OSHA as the enforcer of federal regulations as well as those developed on the state level. A consolidation by DLI of the numerous existing databases relating to or useful for workplace safety and health monitoring was also encouraged. And, as a way of better assuring its ability to meet the intense demands that are already being placed on it, and which inevitably will increase over the next five to ten years, DLI management was urged to continue a complete assessment of its current organizational and management structures, realigning where indicated to achieve the greatest effectiveness from its available manpower and other program resources.

I. Introduction

This report by the Senate Post Audit and Oversight Committee examines the performance of certain functions of the Department of Labor and Industries, particularly those assigned to the Division of Industrial Safety (DIS) and the Division of Occupational Hygiene (DOH). In addition, the specific responsibilities assigned by the Commonwealth's Right-To-Know program to the Department of Labor and Industries are reviewed.

1919 was an historical year for the Commonwealth of Massachusetts. In that year, the General Court authorized a major reorganization and consolidation of the executive branch and administrative functions of the state. Chapter 350 of the General Acts of 1919 created fifteen new departments within state government as well as one new district commission. The subject of this performance audit was part of the mainframe of state government created by that 1919 legislation. As part of that restructuring, the then existing Board of Conciliation and Arbitration, the Minimum Wage Commission, the Office of the Commissioner of Standards and the Office of the Surveyor General of Lumber were abolished. They were succeeded by the Department of Labor and Industries (DLI). Additionally, certain powers of the Industrial Accident Board as well as the function of publishing labor and manufacturing statistics, a task formerly performed by the Bureau of Labor Statistics, were transferred to DLI. For almost seventy years, the basic structure of DLI has remained pretty much intact. But over the years the nature, components and technological sophistication of the constituency it serves has changed dramatically.

In 1986 the size of the Massachusetts workforce had grown to almost 3 million workers who were employed by 155,000 different businesses. The profile of those workers as well as industry itself has changed, perhaps most notably from the advent of various "high tech" businesses which employ highly trained technicians and use and produce an array of chemicals and toxic by-products undreamed of in 1919. Whereas in the past DLI inspectors and engineers had to deal primarily with practical and apparent safety concerns such as adequate lighting and ventilation and proper safety guards on machinery, it is not uncommon for them now to deal with the additional complicated issues of lift-slab construction, asbestos exposure and the unseen but still real dangers of laser and microwave equipment. In addition, expanded and new areas of responsibility have been given DLI over the intervening years, including handling complaints and investigations related to nonpayment of wages by employers, oversight of various public works related projects, and assisting in the implementation and enforcement of the Right-To-Know program.

The Department of Labor and Industries, with a mandate to monitor and enforce fair labor standards as well as health and safety standards in the workplace, has allocated responsibilities among five major Divisions (Appendix 1). These include:

- The Division of Industrial Safety
- The Division of Occupational Hygiene
- The Minimum Wage Division
- The Apprenticeship Training Division
- The Division of Employment Agencies

Because of DLI's relatively large size and the variety of responsibilities assigned it, the Committee decided to focus only on certain activities within the Department and chose those most directly impacting on worker health and safety. Those activities are primarily performed by the Divisions of Occupational Hygiene and Industrial Safety and it is those two divisions which are the focus of this review.

In performing this review, the Committee employed a standard research approach of interviewing key personnel involved with DLI and the Divisions under review and interviewing representatives of some of the entities subject to DLI's regulations. In addition, there were reviews of reports and other documents produced in the normal course of agency operations, agency files, and relevant literature and independent studies. The research was conducted between the summer of 1987 and February, 1988.

II. The Worksite . . . - Is It Safe?

Most people place a fundamental value on good health and living a long life. People don't enjoy being sick, injured, diseased or disabled. A major battleground in the war to prevent premature or unnecessary death and disablement is the workplace. In Massachusetts, half of the residents spend up to a third or more of their working day and up to a half or more of their waking hours in the work environment. Studies have shown a relationship between the quality of the work environment and the incidence of death, sickness and disease. In 1986 the Massachusetts general population was approximately 5.8 million, and the workforce population was approximately 2.9 million. Fifty percent of the general population works in one or more of the Commonwealth's 155,000 businesses. That the workplace is a major site of disease contraction or death is demonstrated in the following data provided by the National Safety Council, data which many students of worksite health and safety contend represent only the tip of the iceberg.

According to the National Safety Council, in 1986, from a national base of 110 million workers:

- 10,700 workers died from job related accidents;
- 1.8 million workers received disabling injuries, 60,000 of which were permanent;
- 40% of the deaths involved workers 25-44 years old, those in the most productive years of life;
- 35 million workdays were lost from disabling and fatal accidents;
- time lost in future years due to 1986 deaths and disabilities at the workplace accounted for 100 million future lost workdays;

- workplace injuries and disease cost $34.8 billion, including wage losses, medical costs, insurance, administrative costs, the cost of time to investigate accidents and the money value of time lost by workers other than those that were disabled;

- at least 20% of all occupational injuries were back injuries; and

- each worker had to produce $320 worth of goods and services to offset the cost of work injuries.

The Massachusetts workforce is approximately 2.6% of the national workforce base of 110 million. Being a highly industrialized state, Massachusetts probably mirrors national health and safety statistics on a percentage basis. If you extrapolate from the national data presented by the National Safety Council to develop an estimated comparable experience for Massachusetts, the following statistics are developed:

- 280 deaths from job related accidents;

- 46,800 job related disabilities, 1,560 of which are permanent;

- 910,000 workdays lost due to disability or fatal accidents;

- 2,600,000 future workdays lost due to deaths and disabilities occurring in 1986; and

- a work related injury and illness cost of $905 million, including the same costs as presented with the National Safety Council data above.

An actual measure of Massachusetts' workplace safety is provided through information received from the Department of Industrial Accidents. This data presents the number of first reports of injury filed with the Department by businesses in Massachusetts. From 1982-1985, all injuries, no matter how significant, were reported. Effective November 1, 1986, only injuries resulting in at least five lost work days required reports.

FIRST REPORTS OF INJURY

Year	# of Reports
1982	289,211
1983	261,824
1984	343,648
1985	314,355
1986	96,000
1987	73,148

In the Governor's fiscal year 1989 budget recommendation for the Executive Office of Labor, it is noted that in fiscal year 1987 more than 350 deaths occurred from accidents in the Massachusetts workplace. This actual number is significantly higher than the 280 that is derived by extrapolating from national data.

The Committee points out that accidents are only one aspect of occupational health and safety. The second aspect is occupational disease. It is more insidious in nature and more difficult to measure than a workplace accident.

The National Institute for Occupational Safety and Health (NIOSH) publishes a list of the ten leading work related diseases and injuries. They are:

- Respiratory diseases (includes lung cancer)
- Acute traumatic injuries
- Muscular/skeletal injuries
- Disorders of the reproductive system
- Neuro/toxic disorders
- Noise induced hearing loss
- Dermatologic disorders
- Psychological disorders
- Cardiovascular diseases
- Occupational cancers

Some may ask, "How does the work environment cause these types of injuries or disease?" The National Safety Council, in the 1987 edition of Accident Facts, focused on two of the diseases on the NIOSH list, occupational cancers and cardiovascular disease, in an attempt to show a causal relationship between the worksite and these diseases. Epidemiological and toxicological studies suggest that a high proportion of cancer is related to behavior and environment, including the work environment. The publication also states that many agents found in the worksite are associated with occupational cancer. Hardwood dusts, radium, nickel, asbestos, benzene and arsenical pesticides are some examples of worksite agents associated with occupational cancer. The big problem is establishing what proportion of all cancers can be traced to an occupational exposure. The National Safety Council estimates the range may be as wide as 4% - 20%, with larger variations possible in certain types of business.

According to the National Safety Council, occupational cardiovascular disease also is very troublesome. Because this disease already is responsible for many deaths throughout the entire population, any small increase in relative risk could have severe consequences. Examples of substances found in the workplace that can affect cardiovascular health are metals and dust, carbon monoxide, noise, psychological stress and nitrates. According to the Massachusetts Interagency Task Force on Occupational Injury and Illness Surveillance and Intervention, occupational disease frequently goes unrecognized due to 1) the often multicausal nature of many chronic diseases, 2) the generally long latency periods between exposures and symptoms, and 3) the fact that many health care providers are not adequately trained in occupational illness recognition. Furthermore, the Task Force points out that only a small percentage of workers' compensation claims are from workers suffering from occupational disease, as opposed to injury.

There is a bright side to this situation, however. Because occupational accidents and diseases typically arise from manmade conditions, a large percentage of them can be prevented through elimination of hazards and early detection of both the disease and its causal factors. Accomplishing that is one of the mandates of the Department of Labor and Industries.

III. Workplace Regulators

A. Overview

A major player in the health and safety arena in Massachusetts, DLI has the mandate to regulate Massachusetts' workplaces to assure optimal worker health and safety. However, assuring worksite health and safety is not DLI's only mission. This agency also monitors a variety of other employee/employer related matters such as nonpayment of wages, child labor laws, employment agency practices, apprenticeship training, and compliance with prevailing wage rates at certain worksites. Further, DLI is not the only workplace regulator with responsibilities and authority in Massachusetts. A variety of regulators, state and federal, have health and safety responsibilities in Massachusetts and the overall structure is somewhat muddied. Many federal and state governmental agencies have promulgated health and safety regulations. Just as DLI has been defined as a major state health and safety regulator, the U.S. Occupational Safety and Health Administration (OSHA) is considered the primary federal health and safety regulator. A contentious relationship exists in Massachusetts, as well as in other states, concerning OSHA's ability to preempt state health and safety regulation. In other words, there is a question if an OSHA regulation on a health and safety matter takes precedent over a similar state regulation. In states where both the state and OSHA are operating aggressive health and safety systems, the courts have had to intervene. The Illinois Appellate Court upheld a lower court's decision that OSHA does in fact preempt states from applying their criminal laws in areas where there are federal regulations governing working conditions. The Commissioner of DLI expects preemption to be tested in Massachusetts in the not too distant future. Until it is, OSHA and DLI share a somewhat uneasy side-by-side existence.

Other state entities also have an effect on health and safety in the workplace. This is also the case with federal agencies outside of OSHA which operate on an independent basis. No formal structure seems to exist for coordination or delineation of responsibilities nor has any one agency taken a true leadership role. The major entities involved with workplace safety issues, and their primary responsibilities, are:

1. The Occupational Safety and Health Administration (OSHA): Organized under the Occupational Safety and Health Act of 1970, OSHA is a federal agency authorized to conduct workplace inspections to assure compliance with agency standards for workplace health and safety. OSHA has two regional offices in Massachusetts. Overlap does occur between OSHA health and safety regulations and the health and safety regulation of certain state agencies. OSHA has recently preempted the Commonwealth's Right-To-Know law in the manufacturing sector and will shortly preempt it in the nonmanufacturing sector, essentially removing oversight and enforcement of those aspects of Right-To-Know laws from state jurisdiction.

2. United States Environmental Protection Agency (EPA): This federal agency is presently in the process of implementing Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) in Massachusetts. Title III establishes requirements for federal, state and local governments and industry regarding emergency planning for the handling of and community reporting on accidental leaks, spills or similar occurrences involving hazardous materials and toxic chemicals. While the program regulations are being developed at the federal level, the states are required to implement their provisions. A Massachusetts Emergency Response Commission has been established to implement this law. Massachusetts was allocated only $89,000 to put this program in place.

3. Massachusetts Department of Public Health (DPH): The primary mission of this agency is to protect the public health. As part of a departmental focus on occupational disease, DPH has established a variety of health and safety programs which are preventive in nature. Programs exist to collect epidemiologic data, to perform occupational health and safety surveillance, and to protect the public as well as workers from radiation hazards. The Department of Public Health is also one-third of a state agency triumvirate which administers the Massachusetts Right-To-Know law.

4. Massachusetts Department of Industrial Accidents (DIA): This agency's primary mission is to administer the Massachusetts Workers' Compensation Law. As part of that, it collects information on and is involved with the incidence of injury or illness allegedly caused by workplace conditions.

There are other state and federal agencies which are involved with worksite health and safety of one sort or another, including the Department of Environmental Quality Engineering (DEQE), the Nuclear Regulatory Agency, and the Commonwealth's Department of Food and Agriculture which monitors the use of pesticides in Massachusetts. The other major entity, however, is the Department of Labor and Industries. It handles most of its worksite health and safety responsibilities through two of its Divisions, the Division of Industrial Safety and the Division of Occupational Hygiene. A closer look at those Divisions follows.

B. The Division of Occupational Hygiene (DOH)

1. Programs

The existence of a Division of Occupational Hygiene in the Department of Labor and Industries is mandated under section 3 of M.G.L. c 23 and its general duties and responsibilities are specified in section 11A of that chapter. In general, the mandate given is to investigate conditions of employment relative to health hazards, to determine the degree of hazards, and to investigate and evaluate means of preventing or controlling those hazards. In addition, the Division is given the charge of promoting occupational health and education. While investigatory authority is clearly given the Division, it is done so in the context of a primarily preventive, informational, and educational mandate. And in fact, the activities of DOH have reflected that emphasis over one of a predominately regulatory or enforcement nature.

The Division, with offices and personnel located in West Newton, has four major sections. They are the asbestos program, the industrial hygiene section, the 7(c)(1) consultation program and the Right-To-Know program. These are supported by a central administrative section. Other smaller sections dealing with issues such as reproductive toxicity and radiation control are also part of the organizational structure of this Division. A complete organizational chart for the Division of Occupational Hygiene is included as Appendix II. This division of DLI focuses on chemically originated health and safety problems and has a strong scientific orientation. The Division provides a myriad of well developed health and safety related educational materials for employees and businesses and also serves as a technical resource for both business and other departmental divisions.

The DOH asbestos program is primarily a public sector and school program, directed toward 2,000 public schools and 10,000 public buildings, with a focus on avoiding or preventing exposure to airborne asbestos in public sector workplaces and within public schools. Asbestos has been proven to have a direct link to cancer and certain respiratory diseases. Through this program, DOH performs surveys of public buildings for asbestos and does analysis of air samples to determine its prevalence. If necessary, recommendations are made by the Division for controlling asbestos hazards. DOH performs a variety of other services related to asbestos exposure, including air sampling and training related to safe work practices when there is the potential for exposure. In fiscal year 1987, DOH performed 1603 asbestos bulk samplings and 112 asbestos air samples. Each of those samplings is fairly extensive and takes between one half to two hours. In terms of inspections and visits, this is the most active program at DOH. The DOH laboratory in West Newton has a special asbestos section, supervised by an Environmental Engineer IV who, in addition to extensive asbestos related laboratory responsibilities, also is responsible for working with other state and federal offices and agencies, such as the Office of the Attorney General and the Environmental Protection Agency, on asbestos related matters.

The 7(c)(1) OSHA Consulting Program at DOH is part of a $700,000 consulting contract between DLI and OSHA designed to assist employers in making and keeping their workplaces safe and healthful. The Division of Industrial Safety also has 7(c)(1) consultation responsibility. DOH provides its consultation services after a request has been made by an employer. This service is meant to be nonpunitive in nature and a proactive effort by the Division to help businesses improve the quality of the workplace. Surveys of a workplace are made by program consultants in a nonacrimonious environment. The results are given to employers with recommendations as to corrective action that can be taken. These services are confidential and, according to the fiscal year 1986 DOH Annual Report, 304 requests were received for this free consultation in that fiscal year. Businesses that have taken advantage of this program reportedly have been happy with the results. However, when businesses were queried as to how they learned about the program's availability, the answers were varied. No central source for information was identified. Two major problems exist with the overall DLI 7(c)(1) consultation program. First, most businesses interviewed were not convinced that the findings would remain confidential; this limits the program's acceptability and industry penetration. Secondly, the program awareness level among businesses is low, again limiting its penetration.

The Industrial Hygiene Program is a DOH program which investigates hazards in the workplace on request from employees and others, such as an outside agency. The typical DOH role in this program is of a scientific and technical nature, with personnel providing solutions to industrial hygiene problems in the workplace. An example of the technical type of testing performed by DOH is air sampling of the workplace to determine employee exposure to substances which could be hazardous. Analysis of the air sample is made, with results and recommendations presented to the employer. Follow-up occurs if necessary. As the second most active DOH program, with approximately 350 inspections/visits in FY 1987, this program has been the foundation on which other DOH programs have been built. In FY 1987, 3,300 recommendations were made as a result of program intervention. These affected approximately 13,400 employees.

As part of the overall DLI Right-To-Know (RTK) program responsibilities, DOH provides technical and educational support to employers, employees and state agencies. Major Right-To-Know responsibilities include Material Safety Data Sheet (MSDS) compilation, development of educational tools for employers and employees on RTK, a RTK consultation program and a monthly Occupational Health seminar program. The RTK program staff also provides technical assistance on Right-To-Know investigations to the Division of Industrial Safety. Data presented to the Committee showed that as of January 1, 1988, 41 Right-To-Know consultations were ongoing, with a focus on the public sector.

As part of the substitute MSDS compilation activity, in the first six months of fiscal year 1988 three substances had a substitute MSDS completed: aluminum, beryllium and iron oxide fumes. Fourteen others are in various stages of completion. An increase in this activity is anticipated for the second half of FY 1988. Additionally, four RTK manuals and/or booklets were completed or continue to be available during the first six months of FY 1988 and technical assistance co-visits were performed on RTK issues with the Division of Industrial Safety.

2. Approach

In meeting its program responsibilities, DOH apparently fills a problem solving and educational role, assisting those subject to workplace regulation in understanding the regulations and meeting compliance standards. It is this consultative/educational posture which dominates DOH's image among the businesses and employers it works with, as well as within DLI itself. In many cases, the Division of Industrial Safety or the federal OSHA call on DOH staff for technical assistance or refer companies to DOH for educational support. The educational emphasis reportedly was established by the Division's first director and continued over the years. According to one national health and safety consultant interviewed by the Committee, it is an emphasis which has gained DOH a highly regarded status and national recognition.

DOH's role on the enforcement side of the picture is more ambiguous. There is a question among some key department officials as to whether or not DOH can statutorily serve as an "enforcer" as well as an "educator", or if the enforcement burdens must fall exclusively on the Division of Industrial Safety. Industry representatives interviewed expressed perceptions of DOH as almost exclusively a technical resource, not a "policer or punisher". This by itself is not necessarily a negative, but could be if its perceived lack of regulatory authority prevented DOH from securing employer cooperation or effecting needed workplace safety changes. DOH, while often serving a technical support role, does conduct independent workplace investigations and inspections. If those activities result in findings that a business or industry has an unsafe environment or practices, change must be secured, even from a recalcitrant or uncooperative employer. Therefore, clear enforcement authority vested in DOH becomes vital. DLI senior management indicated a shared concern over the enforcement ambiguity and the Committee urges it to pursue a resolution that clarifies DOH's ability to enforce when and where educational and technical support fail in their goal of voluntary compliance.

3. Management and Personnel Systems

In terms of size and personnel, the Division of Occupational Hygiene is relatively small. In addition to the Division director and assistant director, there are 41 authorized program positions, 38 of which were filled at the time of this review. Six of the engineer positions are dedicated primarily to the Right-To-Know program, with the remaining 23 engineer, chemist and hygienist positions covering remaining activities. Staff support services are provided by the other positions.

Professional staff of the Division are comprised primarily of engineers, chemists and hygienists. This, according to its management, creates within DOH a competitive, self-policing work atmosphere with a strong orientation toward peer approval. Personnel are encouraged to participate in continuing education programs and in many instances have been asked to present papers at outside professional forums. The Division produces an extensive annual report highlighting its yearly activities and initiatives.

Like the overall Department of Labor and Industries, the Division has suffered from a lack of databases and computerized management and operational systems. It has, however, taken a first step toward automating information management by implementing a computerized database for its inspectional activities. In addition to generic information such as company name and location, the data includes the name of the responsible inspector, important dates of intervention, any deficiencies noted and relevant findings from the inspection, such as equipment readings and results from laboratory sample analysis and the number of employees or students affected by the hazard. The system allows for detailed monthly activity sheets that essentially profile program and inspector activity.

Initiating this system is to DOH's credit. As the health and safety system in Massachusetts undergoes inevitable change, DOH will be in a position to "go with the flow" more easily with the tools offered through the system. For example, health and safety statistics and information provided the Committee indicate that the majority of visits to or inspections of workplaces are reactive in nature. That is, they are prompted by an accident or emergency. Budgets and resources available to DOH and others charged with health and safety standards enforcement have, for the most part, only allowed for this type of retrospective approach. Presuming this fiscal situation will not change dramatically in the near future, more creative and resourceful approaches may be needed to meet preventive regulatory challenges. In the case of DOH, database profiling now can occur which will allow the Division to focus its efforts. Certain types of industries or even a geographic region in the state may be more at risk than others. Certain areas of the state may need more engineers or an engineer with a certain expertise, depending on the area's prevalent industry. Without a computer system, tracking health and safety trends in the state is almost impossible. With this data system, statewide needs analysis can be performed. This profiling ability could free up staff time that would allow an additional focus on education and prevention, proactive measures which will inevitably increase the level of health and safety in the workplace. Through the development and implementation of this data system, DOH has made an investment that should produce immediate returns to the Division in terms of increased productivity and efficiency.

DOH still shows some weakness, however, in internal management controls and tools. For example, not all distinct DOH programs have operations manuals which set out the purposes of the programs and the procedures to be followed in implementing those purposes. Where most DOH programs have limited staff, cross-over among program staff can be expected. If each program had an operations manual, consistency among staff, and uniform understanding of the program operations, could be enhanced. Program manuals could eliminate programmatically hazy areas and better define staff roles and responsibilities.

In addition, DOH should consider implementing formal quality control checks for work performed by engineers so that actual program outcomes can be measured against established criteria, standards and performance expectations. Currently, no such system is in place.

And, finally, there could be a better accounting of staff time. Generally DOH field staff spend two days in the office and three days in the field. No written schedules or itineraries are required for that field time. The Committee is not suggesting that in the absence of schedules staff misuses its time. However, without written schedules it is more difficult to identify the time involved with various types of site visits and to identify possible scheduling changes or adjustments which would achieve more efficient or effective use of staff time.

4. Staff Qualifications

Most professional positions within DOH carry the title of "Environmental Engineer" and have four "grades" to signify increased responsibility and salary ranges. Specific duties and responsibilities vary depending on the DOH program to which a position is assigned, but generally include evaluation of and testing for environmental hazards, providing technical assistance or training in safe work practices or industrial hygiene, design of training manuals, performing field surveys, and consulting with employees of other internal divisions. Qualifications for the positions also vary, depending on both the level of the position and the specific program assignment, and range from a minimum seven year's of prior experience plus a master's degree for Grade IV to two years of technical or professional experience, or a bachelor's degree in specified fields, or an associate's degree and one year of experience for a Grade I Engineer.

To assess DOH's adherence to its formal qualification criteria, the Committee performed a review of the qualifications of twenty-two people currently in Environmental Engineer positions at the Division of Occupational Hygiene. The positions occupied included Environmental Engineer Grades II, III, and IV. Of the resumes reviewed, only one showed an educational and work experience background which failed to meet the minimum formal requirements for the position held. However, that resume, like many others, did not appear to be current and qualifying degrees or work experience gained after initial hire and prior to assumption of the current position may not have been reported or on file.

The resumes reviewed showed that the predominate educational background was in either engineering or one of the physical sciences. Work experiences prior to assuming a DOH position included professional activity in toxicology, biological laboratory analysis, chemical analysis, and public and private sector occupational and industrial safety and hygiene.

5. Continuing Education/Training

While the Division of Occupational Hygiene requires a considerable educational background and/or past professional experience as a prerequisite for employment, continued training and education is also vital given that the field of health and safety is basically technological and scientific in nature and continually in a state of change. The ability of DOH health and safety engineers to perform at a high level and remain up to date in their fields of expertise needs to be a priority concern of the Division. The Division's response to the Committee's inquiry about continuing education indicated that continuing education is highly valued.

The Division uses three major sources for continuing education. An official record of which engineers attended what courses is not available, however, due to the lack of computerized tracking.

The first continuing education source for the Division is the Harvard School of Public Health. Over the past two years all new engineers were offered the opportunity to participate in "Fundamentals of Industrial Hygiene", a five day course offered by that school. Twelve engineers participated in that program.

A second source of continuing education for the Division is NIOSH, the National Institute of Occupational Safety and Health. The Division has taken advantage of numerous NIOSH seminars, including courses offered in Industrial Ventilation, Occupational Respiratory Protection and Sampling and Evaluating Airborne Asbestos. All engineers attended relevant sessions.

The third major source of continuing education is the Annual American Industrial Hygiene Conference. The Division reports that over the last two years, twelve engineers have attended this conference and seven of those attendees have taken the Certified Industrial Hygienist certification examination. Also, on a regular basis, engineers attend the presentation of technical papers which usually focus on the latest occupational hygiene findings.

In the Division, the only training manuals are a short Right-To-Know program manual and a fairly extensive asbestos manual, both of which have been developed over the last year. The Division readily admits the need for a training manual for its industrial hygiene program. No formal in-service training or educational programs are in place in the Division, although program staff contend that the small staff size and centralized office structure promotes sufficient informal exchanges to meet those ongoing educational needs not met through formal continuing education programs or individual initiatives.

Better documentation of staff participation in continuing education programs could be beneficial to the Division, both to assure that the informational up-dates needed by the staff are in fact acquired and to assure that staff are properly credited for advanced training or education.

DOH should include documentation of attendance at educational seminars in its personnel files and should consider matching an engineer's background with available seminars. This could allow staff to become experts in certain fields. DOH in-house seminars could then be run by those individuals who attended a specific seminar, allowing for a sharing of the educational wealth. DOH has recently developed a continuing education documentation form which will be useful to computerize and document continuing education information.

6. Productivity and Program Outcomes

To assess the effectiveness of DOH's activities, it is necessary first to reach an understanding of DOH's purpose or program goal. The statute authorizing the Division is general. Over the years, definition has been given to that statutory language through the structure and establishment of specific programs within the Division. That program development reflects the changes in the workplace and the changing concerns for safety that accompany increased technology and increased understanding of the potentially harmful by-products of that technology. An example is the asbestos work performed by the Division, work which takes its existence from the relatively new knowledge gained about the links between asbestos exposure and cancer.

There are over 155,000 businesses in the state. In addition, there are approximately 2,000 public school buildings and over 10,000 other public buildings. The DOH program staff of engineers is supposed to "investigate conditions of employment relative to health hazards" as well as evaluate means of controlling hazards in all of those settings. Obviously, DOH can not meet its mandate through building by building or employer by employer inspections or on-site evaluations. Rather, as noted earlier, DOH has taken an approach of providing technical and educational assistance, responding to identified needs for such assistance, and intervening when a problem, accident, or emergency is presented.

This educational approach, coupled with a reactive emergency capability, may be the best and only means of DOH deploying its staff resources. What appears to be lacking, however, is any conscious or systematic assessment on the part of DOH or DLI management of the benefits versus the liabilities of that approach and of the feasibility or desirability of options to it. No doubt the failure to undertake such an assessment is in part due to the constant requirements placed on staff and management to respond to present daily demands. It also no doubt is due at least in part to the lack of comprehensive data which could help shape or define alternative approaches. For example, there is no comprehensive database available to DOH or DLI which identifies industries by type of industry, nature of chemicals or other substances used, or nature or quantity of potentially toxic or harmful by-products generated. The Committee is aware of no industry wide surveys conducted to assess the prevalence of various hazards in a workplace by type or nature of industry. Likewise, it is aware of no comprehensive statewide surveys of public buildings undertaken to determine the nature or extent of hazards which may present themselves in those settings.

Technically, conducting such surveys and developing such databases fall within the DOH statutory mandate to "investigate conditions of employment relative to health hazards (and to) determine the degree of such hazards." That mandate was inserted into the General Laws in 1934 and has not been amended subsequently. The resources required to meet fully that mandate in 1988 are vastly more extensive and complex than what was needed in the 1930's. Neither DOH nor DLI have those resources. Development of them, and wider use of existing alternatives, should be considered. Those subjects are addressed more fully in Section V.

Accepting that certain essential information bases and tools are not available to DOH, there still is, however, the question of how well DOH has performed with the resources it does have. A few measurements present themselves for performing that assessment. One is the inspections/interventions conducted by the various program staff. Another is review of the total work activities performed by staff. And a third is assessment of the various "products" which result from DOH programs. The following table, Table I presents some of those measures.

TABLE I

Fiscal Year 1987
DOH Inspectional/Visit Activity

Program	# of Engineers /Inspectors	# of Annual/Monthly Visits/Inspections	Avg. Annual/Monthly Visits/Inspections Per Engineer /Inspector	Annual # of Recommendations	# of Employees in Hazards Areas
Asbestos	8	469/39	59/4.9	1,844	26,395
7(C)(I)	3	256/21.3	85.3/7.1	*	*
Right-To Know	6	99/8.3	16.5/1.4	386	38,476
Medical	1.4	68/5.7	48.5/4	172	38,288
Radiation	1	131/10.9	131/10.9	143	4,092
Industrial Hygiene	3	350/29	116.6/9.7	3,300	13,356
TOTALS	22.4	1,373/11.42	61.3/5.1	5,845	120,607

*7(c)(I) information is not entered into the database to assure confidentiality of information volunteered through the program.

The data presented in Table I was derived from fiscal year 1987 monthly computer printouts of inspection/visit activity provided by DOH. The staff figures are adjusted to account for vacancies, new hire training time and personnel from one program covering different programs when staff are on sick time or vacation leave.

The Table arrays by DOH program the full time staff equivalency assigned, the number of annual and monthly inspections or visits conducted for program purposes, the average visit per inspector, the number of recommendations made for changes, improvements, or preventive or corrective action, and the number of employees directly affected by the hazard that was identified through or which was the subject of the site visit or inspection.

All engineers working at DOH do not perform field inspections. For example, DOH programs presently employ 29 engineers but only 28 functionally perform field inspections. In addition to the information presented in Table I, information on the other activities associated with an "inspection" was provided the Committee. This included copies of case summaries which are prepared following a visit and descriptions of the follow up necessary after an inspection. It was noted by the Division that technical report writing requires approximately one day for each visit although some visits require more time for write-up. The technical reports reviewed were fairly extensive and detailed in nature. They ranged in length from four to thirteen pages. Form letters are not used.

Before an inspection takes place, appointments are made, field equipment is secured, calibrated and tested. Chemical reagents might need to be prepared and coordination with the laboratory may be necessary. Except for indoor air quality testing, there is no routine protocol followed for visits due to site uniqueness.

Engineer time also is spent on the telephone, with each program assigning one person daily to telephone duty. The asbestos program assigns two. Telephone time mainly is devoted to answering questions and recording complaints. Certain emergency complaints, however, may require extensive and immediate follow-up.

Another noninspectional activity performed by engineers within the Division is research necessary to respond to informational requests received regarding chemicals and other workplace hazards. In fiscal year 1987, 1,679 such requests were handled. Other engineering functions cited include routine calibration and maintenance of equipment, attendance at educational and training programs and performing general administrative functions.

A review of numbers alone does suggest that vigorous activity is taking place in this Division. Close to 1,400 onsite visits, which produced almost 6,000 recommendations affecting 120,000 individuals, were conducted in fiscal year 1987. Nonetheless, now may be the time for DOH and DLI senior management to evaluate the DOH programs, measure their impact and produce a long range plan for DOH which either reaffirms the efficacy of its current approach or shifts the emphasis and resources if needed to achieve the optimal response to the present environment.

C. Division of Industrial Safety (DIS)

1. Programs

In 1920, the then Commissioners of the Department of Labor and Industries formally voted to organize the Division of Industrial Safety. It was charged with enforcing those provisions of Chapter 149 of the General Laws which dealt with health, sanitation and safety standards for employees in industrial establishments, those working on building construction projects, and those employed in various other settings. In addition, the Division was given responsibility to oversee and enforce general statutes pertaining to the overall welfare of employees. Essentially the Division functions fall into two primary areas: enforcement of fair labor standards and enforcement of the literally hundreds of separate health and safety standards which apply to both public and private sector employers.

The Division meets these legislative mandates through four major operational units. These are the Right-To-Know Program, the Grants Program, an Industrial Program, and a Building Operations Program (see Appendix I). Presently, DIS is staffed at a level of 74 personnel, 51 of whom are categorized as Safety and Health Inspectors. Other personnel categories include program managers, clerks, stenographers and EDP operators. DIS personnel are assigned to one of five district offices or the central office in Boston. The five district offices are located in Springfield, New Bedford, Lawrence, Worcester and Pittsfield.

The Department of Labor and Industries has overall enforcement authority under the Right-To-Know law and chose to place that program responsibility under the jurisdiction of the Industrial Safety Director. The Right-To-Know (RTK) program manager responsible for all Department Right-To-Know activities is physically located in the DIS Boston office and organizationally reports directly to the Director of Industrial Safety. The primary function of DIS under the Right-To-Know program is compliance investigation. As the agency with access to workplaces through provisions of Chapter 149, DLI uses its DIS inspectors to assure compliance with Right-To-Know provisions. Inspections are triggered by profiles of industrial accident reports or referrals through a variety of sources. DIS also participates in other RTK activities, such as telephone counseling, conducting informational seminars for municipalities and businesses, obtaining Material Safety Data Sheets from manufacturers, and approving third party instructor registration applications.

The Grants Program of the Division of Industrial Safety operates those health and safety programs funded through various federal grants to the state. Currently these include the OSHA 7(c)(1) consultation program, the Contractor Certification Asbestos program, the OSHA survey program and the Mine Safety and Health Training program. The mainstay of the Grants program is the mostly federally funded OSHA (7)(c)(1) consultation program. The program director is functionally within DIS and works out of the Boston Office. A portion of that program, the safety component, also is operated out of the Boston DIS offices. The occupational health component is conducted by the Division of Occupational Hygiene from its offices in West Newton. Most of the health and safety consultants assigned to the program work out of one of these eastern Massachusetts offices, although several of the district DIS offices have an inspector located on site dedicated to 7(c)(l) consultation responsibilities. This allows for more efficient and quicker service to areas of the state outside of the Boston metropolitan area.

The Mine Safety and Health Training program, again federally funded, has a focus on upgrading or maintaining safety and health in the state's 165 mines, e.g., quarries, sand pits, and gravel pits.

The OSHA survey program is a health and safety data survey service provided by DIS under which information on OSHA's activities in Massachusetts is compiled and reported to OSHA.

Finally, the Contractor Certification Asbestos federal grant, now being phased out, funded preliminary activities that were necessary "first-steps" before Massachusetts could implement the recently enacted legislation which mandates licensure by DLI of asbestos removal contractors.

The Industrial and the Building Operations programs can be grouped together for purposes of discussion. These programs are the flagships of the Division of Industrial Safety and focus on industrial hazards and hazards associated with construction sites. An example of an industrial hazard is improper guarding of machinery. An example of a construction site hazard is failure to use hard hats when the conditions of a construction site warrant their use. The Division uses a combination of OSHA, general industry, and its own standards as criteria for health and safety compliance. The Division spent the better part of the past two years developing new, upgraded construction site standards.

Intertwined with Industrial and Building Operation standards enforcement responsibilities are the Division's responsibilities for enforcing a myriad of fair labor standards. Nonpayment of wages by employers, child labor laws and prevailing wage rate enforcement for public bid worksites are major programmatic responsibilities which have been added to the Divisional mission over the years.

2. Approach

"We used to be like the cop on the beat. All of the businesses knew who we were." That quote characterizes the traditional DIS approach to its mission: systematically inspect, cite, enforce, consult with, and fine if need be. DIS fashioned itself as the policeman of workplace safety and regularly covered its industry "beat" to prevent problems and spot violators quickly. This was a constructive relationship, not an acrimonious one. Recently, however, a combination of limited and even reduced personnel levels and a workplace of ever increasing size and complexity has resulted in DIS functioning more as an episodically roving swat team than as that cop who regularly and systematically walks his beat.

When DIS was formed initially, a comfortable coexistence of the safety and health regulation and the fair labor standards enforcement was possible. The volume and nature of this activity was manageable. Recently, however, DIS is claiming it has handled "thousands of nonpayment of wage complaints and prevailing wage investigations" while also crediting itself with "vigorous health and safety activity." Is this claim a signal of true success or is it symptomatic of a Division about to be buried under a collapsing regulatory house of cards?

In some respects the Division of Industrial Safety is the mirror image of the Division of Occupational Hygiene in its approach to program responsibilities. DOH fills a problem solving and educational role among employees and businesses; DIS is the DLI enforcer and investigator called in when necessary to gain compliance with regulations and the meeting of standards or to investigate the circumstances of accidents that have occurred. This enforcement approach by the Division is ratified statutorily under Chapter 149 of the General Laws and in practice, as additional health and safety laws have been enacted, DIS has been assigned enforcement and investigatory responsibilities.

In the past DIS has played an informal quasi-educational role for workers and businesses, running informational programs related to its programmatic responsibility. In recent years, however, it has focussed its nonenforcement efforts on health and safety standards development, with major accomplishments seen in the areas of both asbestos and construction standards development.

The perception expressed by industry representatives when queried about the DIS approach or "role" in the health and safety environment was that DIS lacked a bite to its statutory bark. Although DIS clearly has been deemed "the health and safety enforcer", its impact in that area has not been sufficient to create a deterrent effect. Employers simply do not fear DIS enforcement powers; some could not remember when, if ever, a DIS inspector had visited their worksite.

Another problem suffered by DIS comes from the often duplicative efforts of state and federal health and safety entities. When industry is asked to serve many masters on the same issues, that engenders a perception that no one agency is "in charge", has clear authority, or is "strong" enough to effect compliance. This weakens DIS's standing among its regulated community.

This perception of disarray and ineffectual presence could be lessened through closer coordination and cooperation between DIS and the federal OSHA, in particular. Although DIS expressed strong feelings that its standards are more effective because they are in some instances more stringent than OSHA's, no regulation or standard is at all effective if it is neither complied with nor enforced. While a business by business inspection and enforcement program is not possible, and probably not needed, a more united or coordinated approach from DLI and OSHA might maximize the impact and deterrent effect of each program to the overall benefit of workplace safety.

3. Management and Personnel Systems

The Division of Industrial Safety, in size and number of personnel, is a mid-sized division. A personnel roster provided to the Committee showing name, location and title of all Division personnel except federal temporaries paid directly from grant revenues indicates 74 positions which were filled as of March, 1988, 51 of which were safety and health inspectors Grades I-III.

a. Management and Operational Structure

The program organization within DIS is somewhat confusing. Examples are needed to illustrate this point. The Right-To-Know program is one of the four major programs within DIS. That program has it's own program manager, but RTK inspectional activities are allocated as a percentage of the overall responsibilities of the inspectors within the Industrial and Building Operations programs. Additionally, some RTK responsibility has been delegated to the Division of Occupational Hygiene. Although the primary reason Industrial and Building Operation inspectors were delegated Right-To-Know responsibilities was their right to enter the workplace under M.G.L. c 149, the challenge to the program manager of effectively managing the RTK program is intensified when responsibilities are so spread out and compete with other inspector responsibilities. Technically, inspectors report to district managers who report to program managers regarding their normal day-to-day activity. However, inspectors are not responsible to their managers for RTK activity, although they are for all other inspectional activities which they may be performing concurrent with RTK activity. Conversely, while inspectors are responsible to the RTK manager on RTK activities, that manager has no authority over those inspectors beyond the RTK function.

The Grants Program also has an organizational structure that locates part of the OSHA 7(c)(1) program and its program manager at DIS and part of the program at DOH. It is the DIS program manager, however, who is responsible managerially for all 7(c)(1) activity.

At the District Office level, this "split" in program responsibilities and reporting lines was not seen as a problem, with personnel stating that integration and coordination were accomplished relatively easily and any potential problems resolved amicably between the various program and district managers. The actuality of that assessment is hard to test objectively. Informal systems can and do work well as long the people involved work well together and share professional respect. That conditional aspect, however, speaks to a somewhat tenuous foundation on which program operations and effectiveness rest.

In fairness to DLI and DIS management, the diffusion of program activities among program managers and reconsolidation of them at the inspector level is dictated in large measure by the programmatic and personnel structure of the Division. First, there is the fact that only the health and safety inspectors are considered to have a clear right to entry over private employers. To effectively monitor and enforce compliance with Right-To-Know provisions, that right to entry is needed. Therefore, assigning inspectors RTK responsibilities made sense. If the personnel authorized DLI under the RTK legislation had been hired and used solely for RTK activities, it is questionable if they would have constituted a sufficient number to adequately meet statewide program demand. Even if that could be achieved, management felt a more comprehensive and effective presence would be achieved by combining RTK responsibility with other inspectional duties so that all inspectors would be trained in and able to cover all areas of health and safety on any given inspection. This approach also facilitates inspector assignments as the absence through sickness or vacancies of one inspector will not leave a program "uncovered". If inspectors had "specialized" program expertise only, e.g., were trained and competent only in RTK inspections, one district vacancy could effectively halt all activity in that program for a period of time.

District office personnel assignments do, however, raise another issue related not so much to program responsibilities as to management accountability and authority. Traditionally, inspectors in the District offices held one of two "grades": Industrial and Safety Inspector Grade I or Grade II. There was, however, a functional position known as the "Senior Inspector". This position generally was held by the person with the most seniority in the Grade II position and was assumed somewhat by default. The Senior Inspector was in charge of the District Office administratively but had no formal authority over other inspectors. Recently that Senior Inspector position was designated as an Inspector Grade III through an agreement reached in the collective bargaining process and was given explicit direct supervisory authority over the district office inspectors and managerial accountability to senior Division and Department management.

While this personnel revision appears to strengthen the management structure and presence at the District Offices, the change is at best ambiguous and is one which was put in place after other attempts to secure a formal district office "management" position failed. The Inspector III position remains a designated bargaining unit position which means that the district office "management" person remains in fact a union member, one who now is managing and being held accountable for the activities of his fellow union members. This structure at the district office level is not unique to DIS. Other Departments with district offices have implemented similar arrangements. The Committee has expressed strong reservations about the practical impact of those arrangements and does so again in this situation.

Senior management of a department or division must be able to direct priorities and activities at a district office level with confidence that the policies and procedures adopted by senior management will be followed and implemented by the senior district manager. That is best assured when the district manager is clearly part of management, with loyalties to management and a knowledge that his or her job appraisals and prospects are solely dependent on the assessments made and actions taken by senior management. Likewise, effective supervision of functionally subordinate staff requires that the supervisor be perceived as having and actually does have management-derived authority to take personnel actions, including disciplinary action if needed. When the supervisor shares a union position with the subordinate staff, none of these relationships exist in a clear cut, nonambiguous manner. Senior department management is bound by the collective bargaining agreement in its actions towards the supervisor. That supervisor is also bound by that agreement in his or her action toward subordinates, but at the same time is protected by it in terms of his or her relationship to senior management. If a subordinate feels aggrieved by a supervisor's actions, that grievance is taken to the union which also is bound to represent that supervisory person. It is a muddied situation which is in inherent conflict with sound principles of management. In the DIS district offices, no overt problems traceable to this arrangement were apparent. However, it again was apparent that the absence of overt problems was more dependent on the people, not the structure. Changes in personnel at any level of operations could bring to the surface conflicts now handled informally and could be detrimental to the effective implementation of programs at the district level.

Like the Division of Occupational Hygiene, the Division of Industrial Safety lacks certain formal internal management controls. DIS is lacking in the development of operations manuals which set out the purposes and procedures of each DIS program. This is extremely important in this Division where a variety of programmatic cross-overs occurs and, in fact, is the norm rather than the exception. The Division also lacks a training manual per se, although the Division does have a fairly extensive training process for new hires.

In addition, the Division has no formal systems which measure the quality of the work performed by inspectors or which account for time spent in the field. Presently quality control checks are informal and generally no written schedules or itineraries are required for field time. Again, the Committee is not suggesting that in the absence of schedules staff misuses time. However, without written schedules it becomes more difficult to profile inspector activity which may have to be adjusted to deal with staff limitations or unforeseen emergency situations.

b. Data Systems

As is generally the case at the Department of Labor and Industries, the Division of Industrial Safety lacks a viable on line data system. Unlike the Division of Occupational Hygiene, which has in place a data system, albeit limited, the Division of Industrial Safety has no system in place. The lack of this capability has been recognized by senior management at DLI who requested authorization in a reorganization plan for a Supervisor of Computer Services position. This position would have supervised the implementation and ongoing operations of a computer system but was not authorized. However, DIS has developed an alternative data system plan which calls for a fully operational system by October 1, 1988. Computer hardware has been delivered to the Division and most district offices. The major delay is in development of software capable of meeting programmatic needs. It has been recognized that the software proposed earlier was more complex and sophisticated than needed and would have taken far more time to implement than DIS could afford. A scaled down version of software which meets DIS needs now is being reviewed.

The implementation of this system cannot come soon enough. As is the case for other health and safety regulators in Massachusetts, most DIS inspectional activity now is on a reactive basis. An accident or an emergency usually prompts action. Resources are limited; inspectional staff has not been increased to parallel the increase in worksites and workplace hazards and complexities which have been and continue to be experienced in the state. Both Department and Division management recognize that increased challenges and demands face DIS in its role as a workplace safety monitor. In the Department's fiscal year 1988 budget request, six major areas of concern were noted: (i) the tremendous increase expected over the next five years in public construction, including the numerous highway construction projects, will create an almost unprecedented demand on DIS resources in overseeing worksite safety; (ii) the increased diversification of the Massachusetts economy, while a part of the strength of the economy, has brought into the workplace new technologies with their associated new hazards. Effective oversight requires upgrading of inspector-knowledge and entails more complex and time consuming processes for monitoring and inspecting; (iii) an increased use of "independent contractors" and at home workers makes enforcement and oversight more difficult and time-consuming, further straining available inspector hours; (iv) increased employment of young and/or inexperienced workers, many with limited English language skills, gives rise both to increased risks of and actual accidents and may require varied or enhanced safety measures from those traditionally used; (v) an increasing number of the workforce is working in high risk/high hazard areas of employment, again increasing both the actual and potential accident rates and requiring more vigilant and vigorous oversight; and (vi) increased economic pressures on employers has led to increases in economic and other exploitation of workers, situations which call for DIS intervention and resolution.

To facilitate effective response to the changed and changing workplace in the state, DLI officials requested, as part of their fiscal year 1988 request, significant additional funds to finance some major restructurings of the Department and improve program managerial capabilities. Those funds were not included as part of the Administration's budget, however, and the initiatives, like the request for a computer system supervisor, had to be dropped.

DIS finds itself currently in a position of having to meet changed, changing, and increased responsibilities with resources geared initially to a less extensive and intensive scope of activity. Securing a workable data system can assist by providing management tools that do not now exist, for example the ability to profile industries so that inspector time can be targeted to areas with highest risks or rates of accidents; profiling of inspector activity to determine where time can be "stolen" with the least adverse impact; and profiling of accidents to determine if there are trends or patterns which could be changed or prevented through some industry wide measure.

4. Staff Qualifications

Professional positions within DIS carry the title of "Industrial Safety and Health Inspector" and have three grades to signify increased responsibility and salary ranges. Generally the personnel holding positions at the Industrial Safety and Health Inspector Grade I and II levels inspect equipment, construction sites and buildings, and investigate accidents and other alleged violations of safety procedures and/or wage and hour laws. The Industrial Safety and Health Inspector Grade III level is a newly created position which resulted from negotiations between DLI and the state employee bargaining unit representative, the Massachusetts Organization of State Engineers and Scientists (MOSES). Qualifications for the different positions vary, depending on the Grade level, but at the minimum grade level of Inspector I, 2 years of general experience in industrial health and safety or a related field is required, with an allowance for education to substitute for required work experience.

To assess DIS's adherence to qualification criteria in its personnel appointments, the Committee reviewed the resumes of twenty-seven people currently in health and safety inspector positions at the Division of Industrial Safety. These were reviewed to gain an understanding of the background and qualifications of the DIS inspector staff. The positions occupied included Health and Safety Inspectors I, II, and III. Of the resumes reviewed, only one showed a background that failed to meet minimal formal requirements for the health and safety inspector position held. Several other resumes presented questions as to whether the qualifications were appropriate for the position held, but the broadness of the health and safety job description precludes a precise critique. Also, these questionable resumes, like some of the others, were not current and may not have been fully up to date in terms of education and work experience. Unlike DOH engineers, DIS health and safety inspectors come from broad backgrounds, most including some sort of industrial and/or construction work experience and many with prior union relationships.

5. Continuing Education/Training

Because the Division of Industrial Safety employs a diverse range of individuals with varied educational and professional experience, and because "industry" is becoming ever more complicated and technological, continuing education and training are essential for maintaining staff expertise and competence. Division inspectors will quickly find themselves falling by the roadside if they do not keep up with the changes.

The Division of Industrial Safety regularly reviews the overall continued training needs of inspectors. These needs are met through cross-training, where inspectors with advanced skills serve as mentors to other inspectors; formal internal training curricula and programs conducted two days a month by management or outside professionals; and enrolling staff in special courses, specialized schools, such as the OSHA Institute, or institutions of higher education. Inspectors who attend outside seminars are required to train other staff as part of the internal program. The employee performance review system (EPRS) and the Unit 9 MOSES collective bargaining agreement also have training and career development elements used by the Division. A listing of outside education programs attended by inspectors over the last two years contained approximately seventy different seminars on a variety of topics ranging from management development to applied foundry principles.

For training of new inspectors, the Division does not have a formal training manual, but uses a training program that provides on-the-job training through work assignments with experienced staff and rotation among the district offices. This training continues for six months to one year. Trainees are continually assessed by their supervisor or manager who basically controls the complexity of the work assigned.

The Division director states that, on average, an inspector requires about two years of field experience before independent activity is allowed. In addition, inspectors are given special training and, in some cases, required to pass an examination, as with asbestos, in the areas of principal assignment.

Although the training program described appears extensive, it does not necessarily supplant the need for a training manual. A codified manual would add formality and structure to the training process and allow new hires to track their individual progress. It also could serve as a reference source for both trainees and more experienced staff. More documentation of individual staff participation in training and continuing education programs seems indicated to assure that individuals receive proper credit for participation and to assure that the opportunities to participate in outside programs is equitably available to all inspectors. In addition, better documentation can help assure that inspectors are attending seminars appropriate to their skill levels, primary responsibilities and training needs.

6. Productivity and Program Outcomes

The stated specific goal of the Division of Industrial Safety is protection of workers through operation of specific inspection programs and follow through on negative findings. On a longer term basis, these activities will be focussed on the growing prevalence of toxic substances and the reliance on such materials in the workplace. This is in keeping with the spirit of the original mandate given to DIS from the Commissioners of the Department of Labor and Industries when the Division was created in the early part of this century. That mandate was, and continues to be, enforcing the laws of Chapter 149 relative to health, sanitation and safety of employees in places of employment.

The Division of Industrial Safety in the past primarily focussed on accidents and safety in the workplace and much of that activity had a measure of prevention associated with it. The original scope of responsibilities assigned to DIS inspectors was at a level that allowed time to visit and consult with businesses in the districts. However, over the years, a gradual expansion of the scope of work assigned DIS has occurred. Inspectors at DIS are now responsible for a lengthy menu of health, safety and fair labor issues. Child labor laws, nonpayment of wages by employers, contractor licensure and certification programs and employee Right-To-Know issues are just some of the responsibilities that have been added. In addition, the number of work sites has grown and the nature of the workplace has increased in complexity and technological sophistication. DIS resources are quickly becoming exhausted and the Division's ability to focus on preventing worksite accidents is strained. DIS is almost totally in the business of reacting to reported violations of laws, rather than preventing violations of those laws through regular scrutinizing of the workplace environment.

As with the Division of Occupational Hygiene, it is not possible for DIS to carry out all of its mandates as they apply to the many thousands of workers and workplaces in Massachusetts through a business by business on-site inspection process. Rather, DIS responds to problems presented to it or brought to its attention through its formal and informal responder's network.

The following data is an example of some of the inspectional activity that has occurred relative to two functional areas of DIS, nonpayment of wages and health and safety inspections. The data presented in the following two tables is from fiscal year 1987.

TABLE II

NONPAYMENT OF WAGES

Valid Complaints Received and Processed	5,517
Office Conferences Held	1,604
Prosecutions Initiated	2,152
Total Wages Recovered	$1,848,609
Number of Inspectors	51
Average $ recovered Per Inspector	$36,247

TABLE III

Occupational Safety and Health Activity[1]

District Office	# of Inspectors	Accidents Reported	Complaints	Orders Issued	Avg. Inspection /Inspector	Avg. Orders /Inspection
Worcester	7	94	36	241	18.6	1.9
Springfield	6	280	317	494	99.5	.83
Lawrence	5	124	106	235	46	1
New Bedford	7	414	320	759	105	1
Pittsfield	5	207	177	393	77	1
Boston	21	580	496	1,101	51,2	1
TOTALS	51	1,699	1,452	3,223	61.8	1.02

[1] The personnel information presented is taken from a recently updated personnel roster received from DIS and may vary slightly as to the actual district office allotments during fiscal year 1987. Accident reports begin with information received from a responder network of formal sources, such as an employer's first report of injury, police notifications, media notices, notices from employers or from unions, health officers, building inspectors, and so forth. Complaints are received from other reliable sources such as employers, union representatives, employee family members, other citizens and so forth. Anonymous complaints are not responded to. Orders issued are orders to employers to correct unsafe conditions or notices to employers that an unsafe condition contributed to an accident or an exposure.

Data presented in Tables II and III gives some indication of inspector/district office productivity levels. A caveat to this productivity analysis is that size of district office, geographical area, district industry mix, and other position responsibilities, such as child labor law enforcement activity or elective visits to businesses, have not been taken into account in compiling this data.

On average, each inspector recovers approximately $36,000 in wages and responds, on average, 62 times annually to an accident or complaint, e.g., performs an emergency inspection. District data was not readily available for nonpayment of wages activity, but district data was available for certain health and safety standard enforcement activity. It shows a fairly wide range of average inspections per inspector per district of 18.6 to 105. A fairly stable ratio of one enforcement order issued per inspection exists in the case of all district offices but one. The district office with the lowest average inspection per inspector level issued twice as many orders. This could be explained by a more thorough and maybe more time consuming inspection process or a mix of industries which is more difficult to inspect or presents more inherent hazards.

The primary problem with this data is that is only reflects activity per se. It does not and can not measure the quality or the appropriateness of the activity that took place. Nor can it measure activity that ideally should have occurred to prevent future workplace mishaps or to correct existing but unreported workplace hazards.

The data presented in Tables II and III was collected manually. This fact is symptomatic of a major Division weakness of concern to the Committee, the lack of data and data systems by which to measure program outcomes and focus program activity. It is the responsibility of DLI and DIS to develop such systems to maximize program effectiveness, including a management information system.

DIS essentially has attacked this problem from two approaches. The reorganization management plan had called for an autonomous Data Systems section within the Division. However, funds for these management information needs of DIS were not made available to the Department. A second approach, currently underway, calls for installation of computer equipment in DIS offices which could process at least basic information on inspection activity. DIS timetables call for completion of the project by October, 1988, but software has not been secured nor is it clear to the Committee that the system will have the capabilities to meet the basic minimum data needs of the Division.

The Committee is aware of no industry wide surveys that have been conducted to assess prevalence of various hazards in a workplace by type or nature of industry. Therefore, it is impossible to measure the degree to which current DIS activity levels meet the actual inspection/enforcement needs of workers. Since there also are no profiles of inspectional activity or other materials available to portray the complexities of inspections by industry type or size, it is not possible to measure DIS inspection proficiency. The Committee strongly urges development of the data systems and bases needed to begin measuring both the impact of and the need for DIS inspectional work and to develop standards for inspector activity and productivity.

IV. DLI and Right-To-Know - A Changing Program

One of the most serious environmental problems in the United States, and certainly in every industrial state like Massachusetts, is workplace safety and health. Statistics presented earlier in this report show that for workers, death and disease caused by hazards and chemicals in the workplace is a fact of life. Many health and safety experts are now pointing the finger at the workplace as a major cause not only of accidents, but also of a significant percentage of all disease. And, because of the long latency period of occupational disease, the cancer and lung disease that is presenting itself now could have been contracted 20 years ago by the worker. These cause and effect connections have been recognized and treated seriously only in approximately the last ten years.

Despite passage of the federal Occupational Safety and Health Act of 1970, the first serious federal governmental effort to regulate health and safety in the workplace, Americans continue to die, get sick and be injured from exposure to workplace hazards and substances. Although the federal law initially produced significant gains in improved health and safety, budgetary cutbacks over time have affected levels of enforcement. This has forced some states, depending on their level of interest in workplace health and safety issues, their level of industrialization, or the state's workplace health and safety traditions, to act from a state legislative perspective to protect the workplace.

One of the most popular types of legislation developed over the past few years is legislation that aims at protecting workers from many of the chemicals they are exposed to in the workplace. This type of legislation is known as worker Right-To-Know and has been enacted in one form or another by approximately 25-30 states. Typically, Right-To-Know legislation gives workers and community residents the right to know and learn about the toxic materials they may be exposed to at the workplace or from industrial and commercial firms located in their neighborhood.

Signed into law in November, 1983, the Massachusetts Right-To-Know legislation became effective in September, 1984. This Right-To-Know law mandates that manufacturers supply businesses, and businesses provide employees with information about the exact nature and composition of the hazardous and toxic substances which are in use or stored in their workplace. Employers are also required, in some instances, to supply this information to community residents and other personnel and officials when necessary.

Under the Massachusetts law, three state agencies share responsibility for enforcement and implementation of the law, including the Department of Public Health, the Department of Environmental Quality Engineering, and the subject of this performance audit, the Department of Labor and Industries.

As outlined in the Massachusetts Right-To-Know Employer Assistance Manual, a publication of the Department of Labor and Industries, Right-To-Know responsibilities are divided among the three state agencies in the following manner:

A. The Department of Public Health (DPH) maintains and amends as needed the list of substances which are subject to disclosure by an employer under the law. In addition, DPH is authorized to issue exemptions from the law to research laboratories and for substances which are considered a "trade secret" of their manufacturer.

B. The Department of Environmental Quality Engineering (DEQE) is responsible for keeping on file all of the data sheets, known as Material Safety Data Sheets, or MSDS's, which employers submit outlining the nature and composition of the substances used by them. DEQE uses this information to meet a community's right to know under the law. DEQE also provides training to municipal coordinators who handle citizen petitions for information under the law.

C. The Department of Labor and Industries (DLI) has the primary employer compliance monitoring and enforcement role, with responsibility for assuring that employers are showing "diligent efforts" to comply with the law and for assisting employers in getting complete MSDS's from suppliers and manufacturers.

While this review is not an assessment of the successes or failures of the state's Right-To-Know program, the Committee did feel it was appropriate to comment on the Right-To-Know activity of the Department of Labor and Industries, one of the triumvirate of state agencies with responsibility for administering the law. The overall performance of DLI, and the specific performance of the Divisions of Industrial Safety and Occupational Hygiene, the two divisions within DLI with the majority of intra-agency Right-To-Know responsibility, is relevant as a reflection of overall DLI performance.

DLI's Right-To-Know responsibilities and activities fall into three major categories:

1. DLI is responsible for assuring and enforcing employer compliance with Right-To-Know requirements pertaining to the labeling and storage of toxic or hazardous materials, the proper training of workers in the handling of those materials, and the proper posting of sufficient and adequate precautionary and antidotal information. This responsibility parallels DLI's general workplace safety enforcement and compliance mandates.

2. DLI also oversees and responds to violations of the law's provisions protecting workers against employment reprisals for exercising the rights granted them under the law, such as the right to proper notice about and training in the handling of toxic substances. This DLI oversight again parallels its general mandate to enforce other worker's rights, such as those provided under wage and hour laws.

3. And finally, DLI provides employer services through extensive technical assistance and consultation on Right-To-Know compliance and by active assistance in obtaining information on substance composition from recalcitrant manufacturers or through direct compilation of material safety data sheets. These activities, conducted primarily through the Division of Occupational Hygiene, parallel other activities and services of that Division related to workplace substance analysis, hazard tracking, and safety training.

Since fiscal year 1986, DLI's Right-To-Know budget has ranged from approximately $680,000 (fiscal year 1986) to its fiscal year 1988 level of $733,000. Full time equivalents assigned to the program have stayed level at 25, with their assignments divided among the Divisions of Industrial Safety, Occupational Hygiene and Administration.

From its effective date, the final Right-To-Know statute presented DLI with management challenges. Although the responsibilities assigned DLI under the law were analogous to mandates already within DLI's jurisdiction, the statute failed to give DLI a specific right to enter and inspect workplaces for Right-To-Know compliance. To compensate for this handicap, DLI officials decided to piggyback Right-To-Know enforcement activities on to other workplace enforcement initiatives so that the general right-to-entry authorization provided in M.G.L. c 149 § 10 could cover all activities. This approach led to assigning the Division of Industrial Safety the labeling, posting and worker discrimination parts of the law. And, rather than using the Right-To-Know staff allotment of twelve to form a specific Right-To-Know staff, the overall DIS staff was increased by that number with all new and existing DIS inspectors trained in Right-To-Know surveillance and enforcement. A Departmental Right-To-Know program manager was named and also assigned to the Industrial Safety Division.

Since occupational hygiene activities stress more the educational and technical assistance aspects of securing workplace safety, the Right-To-Know activities given the Division of Occupational Hygiene (DOH) were also more educational and technical in nature, less dependent on workplace access rights, and more program specific in their content. Reflecting that, the DOH staff position increase of eight was used fairly exclusively for Right-To-Know activities, with existing staff retaining already assigned areas of responsibility. A Right-To-Know coordinator was designated within DOH. Technically, that person reports to the Right-To-Know program manager in DIS, while also being somewhat accountable to the Director of DOH.

This organizational structure was dictated in large measure by both the types of responsibilities assigned to DLI and the need to integrate those into existing DLI functions for maximum effectiveness. However, it also presents potential problems for adequate coordination of activities, the potential for conflicting task priorities, and the possibility that RTK could be "lost" among the more traditional and familiar concerns of the inspectors and engineers, particularly those in DIS.

According to Department staff, some coordination problems were encountered during the beginning months of implementation of RTK activities, but resolved internally in fairly quick order. A cooperative approach and comfortable working relationships among Division heads and the program manager are credited with the relatively smooth integration of RTK responsibilities. And, it is noted, the inspection/enforcement activities may have been totally precluded had the approach of divisional integration within DIS not been taken.

A two year period of activity covering September, 1984 to September, 1986 was reviewed to determine the actual extent and nature of RTK activities produced from both DIS and DOH efforts. The Division of Industrial Safety activities were the most difficult to measure since that Division had no dedicated RTK staff. However, what information was provided the Committee is presented.

Since no separate database existed to indicate which worksites had the greatest need for RTK inspections or monitoring, DIS staff determined its Right-To-Know inspection agenda by manually surveying on a daily basis industrial accidents reported to DLI. Those accidents that fit a general profile of potentially relating to or including a RTK violation were flagged for follow up. This led to a reported 820 RTK inspections over the two year period reviewed. In addition, 25 RTK complaints lodged with DLI were investigated and three violation hearings were held which resulted in company fines totalling $3,000. Additional data provided for calendar year 1987 indicated that actual RTK inspections for that year decreased to 44 while complaints from employees or others rose to 65. Six enforcement hearings were held and fines totalling $20,400 were assessed.

During that same two year period, 200 seminars or consultation sessions on RTK requirements were conducted, about 25 telephone inquiries per day were responded to, and DLI assisted businesses in obtaining approximately 261 Material Safety Data Sheets from manufacturers. Through the Division of Occupational Hygiene, an additional 200 companies received RTK consultation services during fiscal year 1987 and the first six months of fiscal year 1988, with nine of those referred to DIS for enforcement action.

DLI efforts to assist in obtaining MSDS's or to compile Material Safety Data Sheets for substances with an unknown or currently defunct manufacturer have not met with clear success. The volume of requests, about 2,000-4,000 a year, exceeded DLI's response capacity. About 5,000 requests for assistance are pending currently. When the actual compilation of the MSDS's becomes a DLI responsibility, concerns over potential liability from mislabeling or erroneous substance identification complicates and slows the process further.

Since being signed into law, the state's Right-To-Know law never was on firm footing. Almost immediately questions were raised about parallel federal laws which preempted the Massachusetts RTK initiatives in the manufacturing sector of industry. And, as of May, 1988, further federal preemption of RTK occurs as OSHA's Hazard Communication Standard takes effect in both the manufacturing and service sectors. This effectively limits the reach of the state law to public sector entities, to "mining", represented in this state by gravel pits, quarries, and similar operations, and the enforcement of "community" or citizen Right-To-Know provisions of the state law. In anticipation of these reduced responsibilities, DLI planned a realignment of existing RTK resources, assigning some full time equivalents to regulation and standard development, some to activities necessitated by the federal Superfund Amendments and Reauthorization Act of 1986 (SARA) and the remainder to continued operation of the state's RTK law in the public and mining sectors.

The bulk of existing RTK resources will go toward meeting the requirements of SARA. The federal government allotted Massachusetts only $89,000 to assure compliance with SARA's requirements that all state and local governments and all industries in the state engage in comprehensive emergency planning for and community education on toxic chemical leaks or spills or other accidental hazardous exposures which may occur. The task can not be accomplished with those severely limited funds. Reassigning DLI personnel who are already familiar with, and in some instances expert in, the safety issues presented by accidental hazardous exposures maximizes state effectiveness in meeting SARA requirements and is a logical extension of DLI's experience.

As the sun sets, in the form of federal preemption, on a majority of the state's Right-To-Know responsibilities, and as DLI Right-To-Know resources begin to shift toward implementing Title III (SARA) in Massachusetts, those charged with implementing this law should use the experiences, good and bad, of the Massachusetts Right-To-Know law as they go forward in the planning stages and then to implementing SARA's provisions.

V. Summary and Recommendations

I. Overview

The Massachusetts Department of Labor and Industries has been a pioneer of occupational safety and health initiatives as far back as the Civil War era. It was Massachusetts that hired in 1867 the first safety and health inspector in North America; the late 1800's brought passage in Massachusetts of "first of its kind" safety and health legislation requiring machine guarding, ventilation, and workplace sanitary facilities.

As a Department closely in touch with both workplaces and workers, DLI's role has been expanded over the years to include multiple and diverse workplace related oversight and regulation. It has accepted these assignments, often given on a piecemeal basis, and hence occupies a position of significant responsibility and authority in the Massachusetts business, manufacturing, service, industrial and public employment sectors.

This review by the Senate Post Audit and Oversight Committee of necessity focused on just some of the responsibilities assigned to DLI. The Committee found that the agency struggles to meet its many mandates with a commitment and concern that is praiseworthy. The Committee also found, however, that the Department, like many other state agencies, suffers from a lack of resources necessary to perform effectively and efficiently all of the functions set out in its statutory mandates. It seemed that the DLI divisions of Industrial Safety and Occupational Health have reached or quickly are reaching a critical functioning mass. This status did not develop overnight; it has been a gradual process. And the situation threatens to worsen as the intensity, complexity and scope of DLI's operations increase and its personnel and support systems remain static or shrink. As one ameliorative measure the Committee feels that DLI could consider organizational changes which could, at least in the short run, generate Department efficiencies and a higher level of programmatic effectiveness. Many of the day to day operational issues and problems that management must consider have been detailed in the sections of this report that discuss the Divisions of Industrial Safety and Occupational Hygiene specifically. Continuing education, staff qualifications, staff itineraries, quality control techniques and training are some of these. Further discussion seems needed, however, on certain aspects of these.

2. Data Systems

If the Department of Labor and Industries is interested in becoming the occupational health and safety leader in Massachusetts, serious attention must be given to developing and implementing a health and safety data system which can be the basis for an overall interagency interactive data system. The Interagency Task Force on Occupational Injury and Illness Surveillance and Intervention, comprised of representatives from the Departments of Public Health, Labor and Industries, Industrial Accidents, Environmental Quality Engineering, Public Safety and Food and Agriculture, reports there are thirty existing health and safety databases among its membership which have potential use for occupational safety and health surveillance. Some are computerized, some are not. All need to be assessed relative to interagency interactive capabilities. Enforcement, surveillance and prevention cannot be accomplished effectively without a health and safety data system that is conceived and developed only after careful consideration of the needs of the entire health and safety system. The Department of Labor and Industries now has an opportunity to take a lead position through the careful planning and implementation of a data system that is accessible, relevant and capable of interacting with other related databases maintained by other agencies and entities.

3. Personnel Oversight

Due to the complex nature of the personnel environment at DLI and the fairly large number of employees, the Committee recommends that the Department consider creating a separate Human Relations Division which would deal with complicated personnel issues such as the need for, and the proper development of, a civil service test for certain DLI employee classifications. In addition, a separate Human Services Division could provide relief to Division and Departmental managers who now spend much of their time managing personnel related issues rather than people. Relieving management of these personnel functions would inevitably free up more time for programmatic and policy development activities, areas sorely needing focussed attention from experienced and knowledgeable managerial staff.

4. Internal Organization

During the brief tenure of the present senior management team at DLI, efforts have focussed on administrative and transition issues such as formulating a more efficient budgetary process. A commitment has now been made by DLI management to initiate plans that will help make the Department more efficient and streamlined. According to DLI management, all divisions will be assessed for potential changes necessary to enhance Departmental efficiencies and enable it to better serve its constituencies. Two recent signals have been sent by DLI management that show it is serious about efforts to create greater departmental as well as divisional efficiencies. The first DLI initiative was a major management reorganization plan for the Division of Industrial Safety, submitted for fiscal year 1988 budgetary consideration. This plan was a de facto recognition within DLI of many of the problems associated with the current divisional structure. It also may be a seed sown that will bear fruit in the near future.

A second more recent signal, representative of management's concurrent effort to restructure programs in a more efficient manner, is the Department's effort to consolidate and centralize licensing and registration functions within one division. Presently, the Department has functions within four divisions which license or register contractors, tradepersons, or equipment associated with or used in seven different industries. The Department considers now an important time to consider this restructuring, since an eighth licensing function, that of licensing deleading contractors, is about to be added to a process that already is fragmented. Continued review of all functional areas of the Department should be pursued to assure the best use of what resources do exist within the Department and the most responsive organizational structure. This seems particularly true for the Division of Industrial Safety which now has wide ranging and diverse responsibilities.

5. Interagency Coordination

The Department of Labor and Industries is not operating in a vacuum. As mentioned in prior sections of this report, DLI is one of many agencies, state and federal, that regulate health and safety in Massachusetts. What is troublesome to the Committee is the lack of a designated system leader. The current system was described by one businessman interviewed as a "five-headed dragon". The question is whether that dragon breathes fire or is choking on its own flame. A common theme among businesses interviewed was that greater visibility and proactivity was desired from health and safety regulators, expressed as the sentiment of "Help us before accidents happen." Those interviewed did not lose sleep worrying about when the next health and safety inspector would appear at the front door; in fact most could not remember when the last formal inspection had occurred. Companies said that internal pressures, not pressures from outside the business, were the driving force for workplace safety. Companies have come to recognize that a safe workplace is generally a more productive one, but some of those interviewed expressed concerns with overlapping regulation and excessive paperwork. They would prefer to serve only one master. The current situation breeds a degree of disregard for all regulators with little allegiance shown to any federal or state agency. Although the point has not been reached where the fox alone is guarding the chicken coop, those charged with protecting workers in the workplace must begin to take cohesive and integrated action if they hope to lay a solid foundation on which to build the overall plan for safety and health in the Massachusetts workplace.

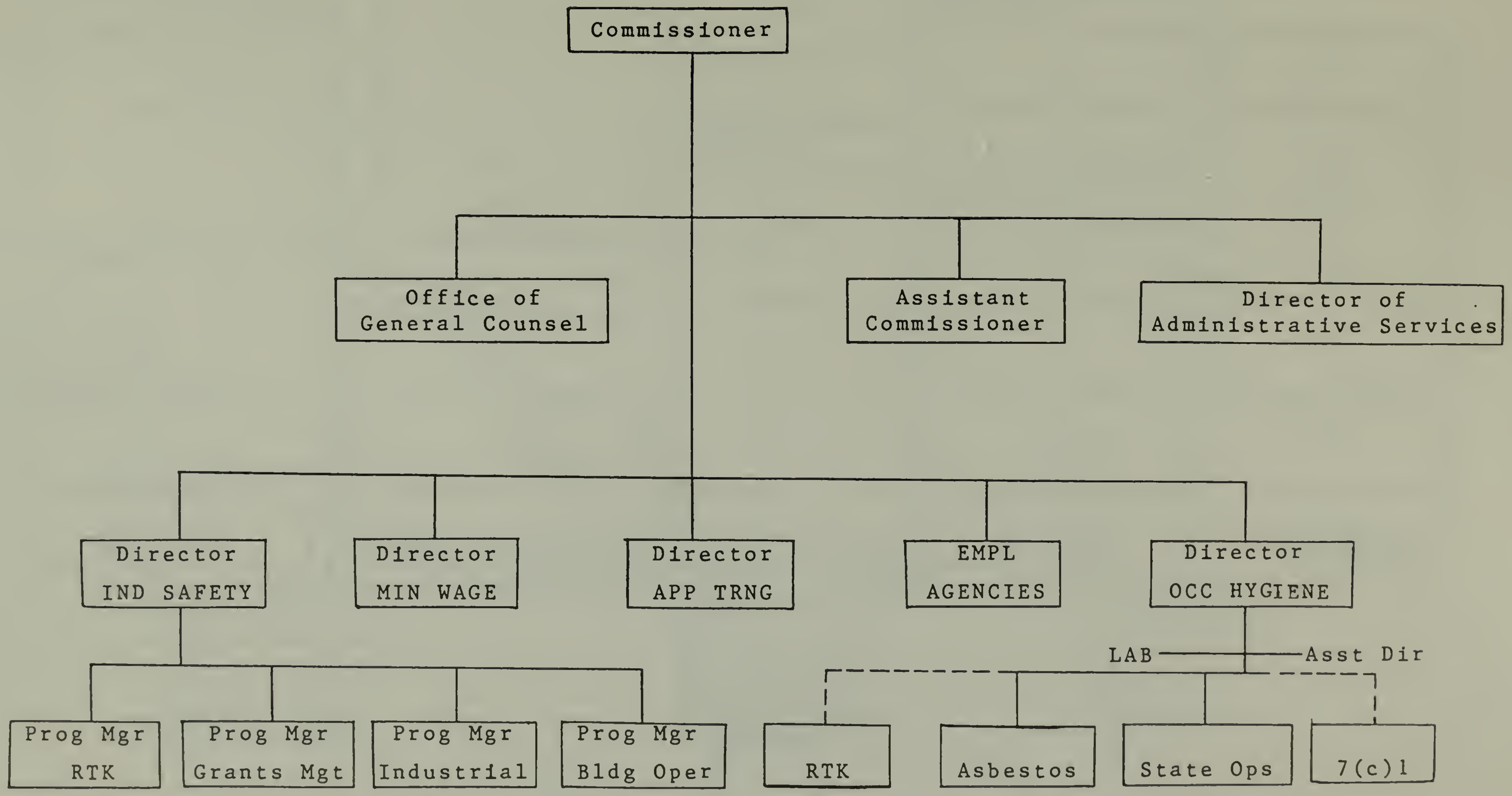
The Committee feels that a logical first step in this process is for the Department of Labor and Industries to reconsider submitting a Massachusetts state plan for workplace health and safety in accordance with the provisions of the federal Title 29. This allows individual states under some circumstances to develop and enforce federal as well as state occupational safety and health standards. Essentially, having a federally approved state plan means that the state assumes the responsibility for the enforcement of federal as well as state safety and health standards, in essence replacing OSHA as the federal standard enforcer in Massachusetts. Massachusetts submitted a proposal for a state plan in 1972 which apparently was rejected on technicalities. Reapplication for state plan status has not gone forward. Apparently it was determined that, for a variety of reasons, state plan status may not be entirely in the best interest of Massachusetts. However, it may be time to rethink the pluses and minuses of reapplying.

Currently, twenty-three states and two territories have approved state plans. Clearly, there is a real division among states as to whether being granted state plan status is good or bad. Some in Massachusetts who view the status negatively focus on the ability to fund such a program in the future, especially if the federal government, under its new federalism policy, abdicates it's fiscal responsibility for safety activities. A second issue is that of being essentially administered by and accountable to OSHA. This negative faction strongly feels DLI reacts faster to health and safety matters, can promulgate regulations faster and generally is more effective that OSHA is or a state plan agency would be. Other negatives are real. There is the possibility of merely creating a larger bureaucracy. Conceivably, additional enabling legislation may be necessary and a union/management nightmare might be created.

On the positive side, under state plan status, there is a recognition that the state agency has been deemed by the federal government to be a health and safety authority. The Committee feels that with this perceived authority DLI could assert the leadership that Massachusetts needs in industrial safety and health. In addition, federal state plan status gives an option to states to bring public employees under the umbrella of health and safety standards. Currently, Massachusetts public employees are not covered by any health and safety standards, except those in the state's Right-To-Know law. And finally, programmatic fusion would occur, programmatic confusion would be minimized, and there would be a greater degree of consistency in workplace safety endeavors.

The Committee is not suggesting that state plan status is the solution to all the problems currently burdening the Massachusetts health and safety system. But, as the resources available to all regulators continue to dwindle and the issues of workplace health and safety become more complicated, consideration must be given to the efficiency of operating dual federal/state systems. DLI has a responsibility to all employees and businesses in both the public and private sectors to put forth responsible solutions to the present problems of operating a somewhat beleaguered health and safety system in Massachusetts. State plan status may be one of those.

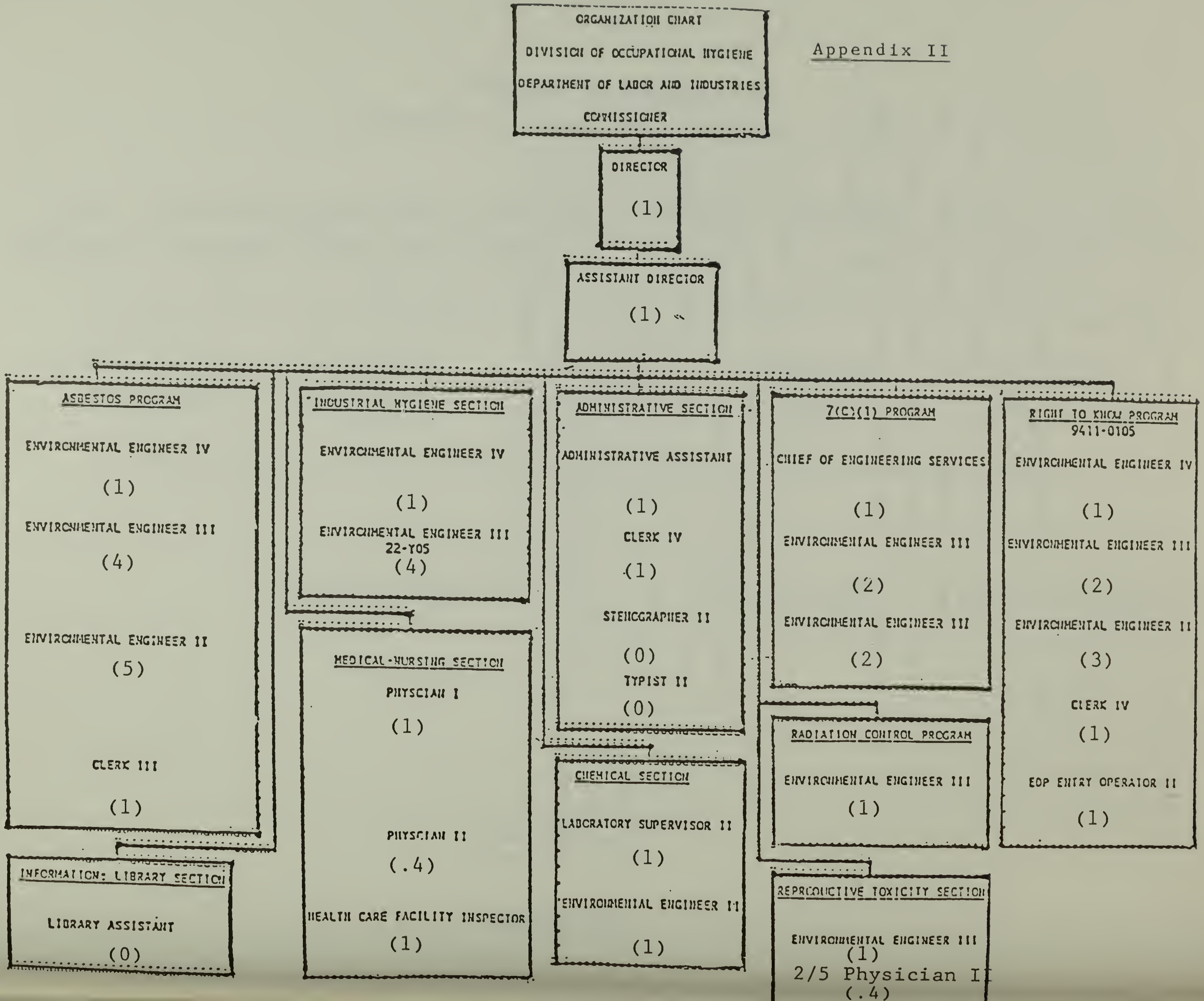
Appendix I



DEPARTMENT OF LABOR AND INDUSTRIES

ORGANIZATION CHART

Appendix II


ORGANIZATION CHART
DIVISION OF OCCUPATIONAL HYGIENE
DEPARTMENT OF LABOR AND INDUSTRIES
COMMISSIONER
DIRECTOR
(1)
ASSISTANT DIRECTOR
(1)
ASBESTOS PROGRAM
ENVIRONMENTAL ENGINEER IV
(1)
ENVIRONMENTAL ENGINEER III
(4)
ENVIRONMENTAL ENGINEER II
(5)
CLERK III
(1)
INFORMATION: LIBRARY SECTION
LIBRARY ASSISTANT
(0)
INDUSTRIAL HYGIENE SECTION
ENVIRONMENTAL ENGINEER IV
(1)
ENVIRONMENTAL ENGINEER III
22-Y05
(4)
MEDICAL-NURSING SECTION
PHYSCIAN I
(1)
PHYSCIAN II
(.4)
HEALTH CARE FACILITY INSPECTOR
(1)
ADMINISTRATIVE SECTION
ADMINISTRATIVE ASSISTANT
(1)
CLERK IV
(1)
STENOGRAPHER II
(0)
TYPIST II
(0)
CHEMICAL SECTION
LABORATORY SUPERVISOR II
(1)
ENVIRONMENTAL ENGINEER II
(1)
7(C)(1) PROGRAM
CHIEF OF ENGINEERING SERVICES
(1)
ENVIRONMENTAL ENGINEER III
(2)
ENVIRONMENTAL ENGINEER III
(2)
RADIATION CONTROL PROGRAM
ENVIRONMENTAL ENGINEER III
(1)
REPRODUCTIVE TOXICITY SECTION
ENVIRONMENTAL ENGINEER III
(1)
2/5 Physician I
(.4)
RIGHT TO KNOW PROGRAM
9411-0105
ENVIRONMENTAL ENGINEER IV
(1)
ENVIRONMENTAL ENGINEER III
(2)
ENVIRONMENTAL ENGINEER II
(3)
CLERK IV
(1)
EDP ENTRY OPERATOR II
(1)

Appendix III

AGENCY RESPONSIBILITIES

Department of Labor and Industries

- Assist employers in obtaining Material Safety Data Sheets (MSDS) (Section 9)
- Administer employee complaints of discrimination for exercising rights under the law (Section 13)
- Enforce employer workplace requirements (labeling, training, obtaining MSDSs and posting workplace notice). (Section 3)

Department of Public Health

- Research Lab Exemptions (Section 6)
- Establish and amend the Mass. Substance List (Section 4)
- Trade Secret Determination (Section 5)
- Physician's Access to Material Safety Data Sheets and Trade Secrets (Section 12 & 20)

Department of Environmental Quality Engineering

- Receive, review and retain copies of MSDSs from employers (Section 16)
- Final determination of the release of MSDSs to a community resident who files a community petition (Section 18)
- Provide copies of MSDSs and data base information to other state agencies (Section 17)